



The *Phillips vs. Wisconsin* Decision and the Decline of Regulatory Effectiveness

David Raley

The passage of the Natural Gas Act of 1938 gave the Federal Power Commission (FPC) regulatory oversight of the struggling natural gas transmission industry. Between then and 1954, this regulated industry generally prospered as it expanded to serve much of the United States. However, in 1954, the Supreme Court reinterpreted the Natural Gas Act and found an implied “legislative intent” to oversee all sales of gas involved in interstate commerce. This decision fundamentally altered the nature of natural gas regulation by placing thousands of small gas producers under the reluctant oversight of the FPC. Unable to cope with the sheer number of new regulatory cases, the FPC resorted to a series of stop-gap measures, including area rate pricing, which greatly contributed to gas shortages in parts of the United States by the early 1970s. The *Phillips vs. Wisconsin* case was a disastrous example of judicial intervention which seriously undermined the effectiveness of regulation as well as the long-term health of the gas industry and the overall supply of natural gas in the United States.

Introduction

The effectiveness of natural gas regulation and the health of the natural gas industry began a long, slow process of decline in the mid-1950s. Prior to this time, federal regulation of natural gas was generally successful. The Federal Power Commission (FPC) had reordered the struggling gas industry of the 1920s and 1930s and eliminated the gas oligarchy, overseen the construction of new trunk lines during World War II, and provided leadership to the industry in building a national network of pipelines, all while attempting to safeguard the interests of gas consumers. As the FPC accomplished these goals, it also virtually guaranteed a steady rate of return year-after-year for the gas companies and their stockholders. The FPC's successes occurred during the period when it operated under the original interpretation of the Natural Gas

David Raley <draley1@epcc.edu> is a Professor of History at El Paso Community College in El Paso, Texas. He completed his Ph.D. at the University of Houston. His research interests include energy and regulation. His study of Tenneco is forthcoming from Texas A&M Press.

© Business History Conference, 2014. All rights reserved.

URL: http://thebhc.org/sites/default/files/Raley%2C%20Phillips%20vs.%20Wisconsin%20Decision_BEH_Formatted%20Draft%20Final.pdf

Act of 1938, which restricted federal regulation to interstate gas companies, and excluded most gas producers. In these years, the commission oversaw a natural gas revolution in the U.S. through the creation of a system of trunk lines connecting gas-rich regions in the Southwest to the large gas markets of the Northeast.

In 1954, the Supreme Court reinterpreted the NGA, finding an implied “legislative intent” to oversee all sales of gas involved in interstate commerce. The decision fundamentally altered the nature of natural gas regulation by placing thousands of small gas producers under the oversight of a reluctant FPC and greatly expanding the power and authority of that regulatory body, without expanding its resources or abilities. Unable to cope with the sheer number of new regulatory cases, the FPC's effectiveness diminished over the next two decades. It resorted to a series of stop-gap measures to deal with the many rate cases resulting from *Phillips*. These stop-gap measures, primarily area rate pricing, greatly contributed to gas shortages by the early 1970s. The *Phillips vs. Wisconsin* case was a disastrous example of judicial intervention which seriously undermined the effectiveness of regulation as well as the long-term health of the gas industry and the overall supply of natural gas in the United States. The *Phillips* decision also encouraged several major gas companies to diversify and it marked a turning point in the evolution of the natural gas industry as a whole.

Phillips vs. Wisconsin

The *Phillips* case stemmed from a dispute over the regulatory status of Phillips Petroleum, one of the nation's leading oil and gas companies and a major producer of casinghead gas, a by-product of oil production. This gas came from active oil wells and could not be conserved—casinghead gas was often flared off as it came to the surface. Phillips had developed a successful business in several areas of the country by collecting this waste gas, processing it, and selling it to unaffiliated interstate pipelines.¹ Phillips did not own any long-distance pipelines and did not engage directly in the interstate transport of natural gas, although Phillips did own a system of gathering lines and processing plants.²

In some markets Phillips was the dominant natural gas supplier to these unaffiliated pipelines. This was the case in Wisconsin, where Phillips indirectly supplied ninety percent of the natural gas sold by local distribution companies. Under the original interpretation of the Natural Gas Act of 1938, the FPC did not consider Phillips to be a “natural gas company,” since it did not directly engage in the sale or transport of gas in interstate commerce. All sales happened prior to the gas entering the interstate pipelines. Seeking lower rates for consumers, the Public Service Commission of Wisconsin vehemently disagreed with this interpretation and petitioned the FPC to regulate Phillips' pricing.³

¹ Casinghead gas served to “lift” petroleum out of the well, and was extracted along with the oil. Trillions of cubic feet of this gas were flared or vented in the absence of pipeline customers. Methods now exist to capture and re-inject this gas if necessary.

² M. Elizabeth Sanders, *The Regulation of Natural Gas: Policy and Politics, 1938-1978* (Philadelphia: Temple University Press, 1981), 94.

³ Energy Information Administration, “Phillips Case: Supreme Court Decision Giving FPC Jurisdiction Over Wellhead Prices (1954),” accessed June 17, 2008, http://www.eia.doe.gov/oil_gas/natural_gas/analysis_publications/ngmajorleg/phillips.html. See also M. Elizabeth Sanders, *The Regulation of Natural Gas*, 94. Detroit joined the Wisconsin PSC in the rate case, and Kansas City and Milwaukee joined the subsequent court cases as well. All of these jurisdictions received a majority of their gas from Phillips.

Prior to 1954, the FPC had been reluctant to regulate gas producers. This stemmed from the original language of the Natural Gas Act, which stated that the provisions of the act “shall not apply to any other transportation or sale of natural gas or to the local distribution or to the production or gathering of natural gas.” The FPC had taken the intent of the law to be unambiguously clear and resisted political pressure to regulate wellhead gas pricing since 1938. This was especially true in the case of unaffiliated gas sales, e.g. those between independent companies. In 1942 and 1943, the FPC had ruled that only gas sales between *affiliated* producers and interstate transmission companies would come under federal oversight. Sales between *unaffiliated* entities (like Phillips and its customers) were specifically exempted by the Natural Gas Act from regulation, a situation which continued until 1954. The law, as written and originally interpreted, gave the FPC oversight powers over roughly two hundred interstate gas producers. Under the Wisconsin PSC's interpretation of the law, the authority of the FPC would have to be extended to cover *thousands* of producers. The FPC's regulation over several hundred companies had been generally effective, but it did not have the resources to provide oversight to the thousands of gas producers in the United States. The *Phillips* case was a disaster in the making.⁴

Phillips' attorneys argued that while the company was a producer and processor of natural gas, it was not a “natural gas company” according to the Natural Gas Act since its gas sales occurred prior to any gas entering interstate transmission. Because it was not involved in the interstate sale of natural gas, it was not subject to regulation under the NGA. The FPC agreed with this argument, and found that Phillips was not a “natural gas company” within the meaning of the NGA, as interpreted prior to 1954. The commission found that the arm's-length relationship between Phillips and its customers (i.e., their lack of direct affiliation) was sufficient to prevent the establishment of monopoly pricing.⁵

The Wisconsin PSC filed suit against the FPC in Federal Court following the adverse ruling. The Wisconsin PSC argued that gas sales by Phillips took place after the production and gathering process, and was therefore part of the interstate sale and transportation of natural gas (in effect, moving the starting point for interstate sales). The Federal Court for the District of Columbia (where the FPC was located) agreed with Wisconsin and reversed the FPC, ordering the commission to regulate Phillips' sales. The FPC challenged this ruling in the Supreme Court with support from Phillips, and the producer states of Texas, New Mexico, and Oklahoma, all of whom had no wish to see federal regulation over producers become reality.⁶

In a five-to-three decision, the Supreme Court sided with Wisconsin, ruling that the Natural Gas Act of 1938 had been misinterpreted in the sixteen years since its passage. The court held that Phillips was indeed a “natural gas company” under the Natural Gas Act of 1938, since its gas sales were for interstate commerce. The sales and rates of Phillips were therefore subject to regulation by the FPC. By extension, other wellhead gas producers whose products ended up in interstate commerce were also subject to regulation.

⁴ *Colorado Interstate Gas Co. v. FPC* 324 U.S. 581 (1945) and *Interstate Natural Gas Company v. FPC* 331 U.S. 682 (1947), cited in Arlon R. Tussing and Connie C. Barlow, *The Natural Gas Industry: Evolution, Structure, and Economics* (Cambridge, Mass.: Ballinger, 1984), 98-99.

⁵ Ralph K. Huitt, “National Regulation of the Natural Gas Industry,” *Public Administration and Policy Formation*, ed. Emmett S. Redford (New York: Greenwood Press, 1958), 95-100.

⁶ Clark A. Hawkins, *The Field Price Regulation of Natural Gas* (Tallahassee: Florida State University Press, 1969), 22.

The court used several lines of reasoning to overturn the FPC's interpretation of the Natural Gas Act. During the course of the court proceedings Phillips had admitted that it engaged in the sale of natural gas in interstate commerce by marketing casinghead gas derived from its oil production activities, and by purchasing gas from smaller producers for resale.⁷ The court also found that Phillips sold all of its gas to five *interstate* pipelines which in turn resold the gas to distribution companies in fourteen states, strengthening the case that Phillips was indeed a “natural gas company” according to the law since all its gas wound up on the interstate market. The court found that “the sales by this [c]ompany are not a part of the 'production or gathering of natural gas,' which are excluded from the Commission's jurisdiction under [Section] 1(b), since the production and gathering end before the sales occur.”⁸

The most far-reaching portion of *Phillips* was the court's interpretation of “legislative intent.” With some difficulty, the court found that when the Natural Gas Act was written in 1938, the Congress did not intend to exclude rate-making authority over any part of the interstate sale of natural gas (despite the specific wording of the law which excluded such regulation). The court found “the legislative history indicates a congressional intent to give the Commission jurisdiction over the rates of all wholesalers of natural gas in interstate commerce, whether by a pipeline company or not and whether occurring before, during, or after transmission by an interstate pipeline company.”⁹ The court also overturned the long-established practice by the FPC of differentiating between affiliated and non-affiliated producers. In the *Phillips* decision, the court found no meaningful difference between the two; all producers in interstate gas sales would now be subject to regulation.¹⁰

The *Phillips* decision had far-reaching implications for the gas industry. It marked the most important change in the business climate for gas companies since the passage of the Natural Gas Act of 1938. The court's interpretation of the law meant that any sale to any interstate pipeline, regardless of where it took place, was deemed to have been in “interstate commerce,” and therefore subject to regulation. Since the Congress was bound by the commerce clause of the Constitution, intrastate gas sales still remained outside of the FPC's authority and would presumably be overseen by the various state utility commissions. This fact would have important consequences for gas supplies in the 1960s—producers and gas companies soon realized that they could avoid federal regulation by moving gas sales from interstate to intrastate markets. The less-regulated intrastate markets were dominated by higher, more market-driven prices than regulated interstate markets. When the nation faced crippling natural gas shortages in the mid-1970s, the majority of new natural gas discoveries were sold to intrastate markets for higher prices than the regulated rates.¹¹

In his dissent against the majority in *Phillips*, Justice William O. Douglas argued that there was nothing in the legislative history or the wording of the Natural Gas Act to demonstrate that Congress had any intention of regulating wellhead pricing.¹² Justice Douglas opposed this judicial fiat, preferring that the question of wellhead regulation be resolved in the Congress

⁷ *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 672 (1954); *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 675 (1954).

⁸ *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 672 (1954).

⁹ *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 672 (1954).

¹⁰ *Ibid.*

¹¹ Martin Melosi, *Coping With Abundance: Energy and Environment in Industrial America* (New York: Alfred A. Knopf, 1985), 291.

¹² *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 688 (1954).

rather than the courts. Douglas was also extremely skeptical of the ability of the FPC to effectively regulate wellhead pricing, pointing out that “regulation of the business of producing and gathering natural gas involves considerations of which we know little and with which we are not competent to deal.”¹³

His misgivings about this aspect of regulation proved prophetic. Effective oversight of the complexities of regulating thousands of disparate gas producers was beyond the ability of any bureaucracy. Natural gas came from a variety of sources including old or “flowing” wells, new land-based wells, casinghead gas, and increasingly, offshore fields. No two gas sources had the same costs; land-based wells had generally lower costs than offshore wells; costs also varied among producers due to greater or lesser efficiency and economies of scale. In attempting to deal with this extremely complex environment after the *Phillips* decision, the FPC would apply a “one size fits all” approach to pricing in the form of area rates, which treated gas as “old” or “new,” ignoring other considerations while holding prices stagnant for years. The eventual result was attrition of both gas producers and gas supply, with shortages appearing by the late 1960s.¹⁴

Wellhead Regulation

Following the *Phillips* decision, the FPC set about the unenviable job regulating wellhead prices across the country. The Supreme Court decision had expanded the authority of the FPC from fewer than 200 pipeline companies to more than 8,000 independent producers of natural gas.¹⁵ The court provided this increase in workload without accompanying direction on how to regulate rates or production. The FPC proceeded slowly, instituting price freezes in the summer of 1954 while looking for direction from Congress.

Many in the industry and in Congress sought to undo the *Phillips* decision by deregulating the industry. Tennessee Gas' assessment of *Phillips* was similar to that of Justice Douglas. In an internal company document from late 1953, Gardiner Symonds noted that “[t]he *Phillips* case put regulation in such a mess, they are going to have to do something about it...I expect the remedy to come through legislation.”¹⁶ The Republican president, Dwight Eisenhower, held a pro-producer (high price) view of regulation and also favored deregulation. Eisenhower had appointed pro-producer commissioners to the FPC, and he generally supported a deregulation bill, known as the Fulbright-Harris bill, introduced in the House of Representatives in 1955.¹⁷

The political climate of 1955 was less conducive to deregulation than it had been the previous year. The anti-regulatory Republicans lost their House and Senate majorities to the Democrats in the 1954 mid-term elections. The two parties split on the issue of deregulation, with more Democrats than Republicans opposing deregulation. Even so, a bipartisan coalition emerged in support of the Fulbright-Harris bill. House speaker Sam Rayburn (D-Texas) and

¹³ *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 690 (1954).

¹⁴ *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 690 (1954). See also Gardiner Symonds, interview by Bob Williams, transcript, November 30, 1966, El Paso Corporation, “Executive Papers, Gardiner Symonds 1953-1968,” box 8, file 2-1-0-2, 1-2 for an assessment of post-1954 FPC policies by Gardiner Symonds.

¹⁵ Merle Fainsod, Lincoln Gordon, and Joseph C. Palamountain, Jr., *Government and the American Economy* (New York: Norton, 1959), 677. Some of these independent producers of natural gas owned only fractional interests in one or more gas wells.

¹⁶ Tennessee Gas Transmission Co., “Notes, Conference with G. Symonds, December 16, 1953,” El Paso Corporation, “Executive Papers, G. Symonds, Misc.,” box 8, file 2-1-0-5, 3.

¹⁷ M. Elizabeth Sanders, *The Regulation of Natural Gas*, 107.

Senate Majority Leader Lyndon B. Johnson (D-Texas) both favored deregulation in the mid-1950s.¹⁸ Rayburn and Johnson cobbled together support from producer-state Democrats and Republicans, along with representatives from spectator regions (areas that neither produced nor consumed significant amounts of natural gas). Opposition to deregulation came from mainly urban, Midwestern, Upper South, and Northeastern regions where gas was imported from other states or from abroad.¹⁹

After barely coming out of committee, the deregulation bill was brought up for a floor vote by Rayburn, where it passed 209 to 203.²⁰ The bill also cleared the Senate, but allegations of improprieties doomed the deregulation drive. South Dakota Senator Francis Case announced to the Senate that an attorney for Superior Oil Company had offered him a \$2,500 campaign contribution, which he believed was intended to influence his vote on deregulation. Superior Oil denied this allegation, but the damage was done. President Eisenhower, not wanting to become involved in a potential bribery scandal in an election year (1956), vetoed the bill, dooming the country to two further decades of regulation as reshaped by the *Phillips* decision. While several other attempts to deregulate natural gas were made, supporters of deregulation did not again come so close to overturning the Natural Gas Act until the energy crises of the 1970s.²¹

With the *Phillips* decision in place and the efforts to deregulate natural gas faltering, the FPC had no choice but to regulate wellhead prices as best it could. The large number of gas producers made this a nearly impossible task for the FPC, which could not keep pace with its unmanageable workload. Rate filings piled up, with many cases taking years to be decided. The original rate case that had triggered the *Phillips* decision was not settled until 1959, after more than three years of hearings.²²

Area Rates

The new realities of the FPC's workload doomed natural gas regulation to failure. The commission tried two methods to determine fair rates after *Phillips*, both which were failures. From 1954 to 1960, the FPC attempted to use the same “cost-of-service” approach to wellhead regulation as it did to pipeline rates. In this pricing model, producers were allowed to recover their costs plus taxes and depreciation in addition to a “fair” profit (generally 6-6.5%). Under this system, the FPC attempted to determine a “fair” rate on a case-by-case basis. This approach worked reasonably well when the number of parties involved was small, but soon failed as the number of producers exceeded the capacity of the FPC. Public hearings before the FPC determined cost-of-service, with the companies involved producing figures to justify their rates. The FPC occasionally ordered rate reductions where the “fair” rate of return was determined to be excessive. Parties with standing could intervene in rate filings, petitioning the FPC for a lower (or higher) rate and dragging hearings out even longer. After hearings often lasting months or years, the FPC determined a “fair” rate. Rates varied between companies and regions,

¹⁸ Both Rayburn and Johnson represented producer-state Texas, which consumed relatively little of the natural gas produced within its boundaries. In general, both Republicans and Democrats from producer-states favored deregulation while Republicans and Democrats from consumer states were opposed. Johnson would later (1961) shift his views on gas regulation and support president Kennedy's appointment of a “pro-consumer” FPC.

¹⁹ Sanders, *The Regulation of Natural Gas*, 100-101.

²⁰ *Ibid.*, 97, 100.

²¹ Sanders, *The Regulation of Natural Gas*, 103-106.

²² *Ibid.*, 111.

since costs and efficiency differed across the industry and across the country. This method was far too time-consuming and complex for the reality of the natural gas industry by the late fifties. For example, in 1959 the FPC received 1,265 applications for rate increases, but ruled on only 240, leaving more than a thousand cases undecided and in limbo. By the following year, the FPC backlog was more than 3,300 rate cases, with more cases coming in.²³

As rate cases piled up, gas companies faced long delays in receiving permission for new projects and rate increases. Since gas rates could be challenged and the FPC could order refunds, the more time that elapsed between higher interim rates taking effect and commission hearings on their necessity, the greater the risks of very high refunds required of companies whose rates were overturned. Over time, this situation simply became intolerable. Uncertainties from ever-longer regulatory delays reinforced the diversification efforts of several major gas companies, including Tennessee Gas, whose president, Gardiner Symonds, angrily noted that “we can't live with a 6 or 7-year delay in obtaining a decision from a regulatory agency...[w]e can spend money and energy better elsewhere.”²⁴ “Elsewhere” for Tennessee and several of its competitors meant unregulated businesses beyond the reach of the FPC.

Clearly, the FPC needed some method other than the cost-of-service approach it had used before 1954. In 1960, it instituted a new pricing method intended to eliminate the backlog of rate cases and provide some overall structure to natural gas pricing. The solution was area rates, as set forth in the *Statement of General Policy No. 61-1*, issued on September 28, 1960. This new FPC policy grew out of its six-year long attempt to regulate the producer market, and represented perhaps the most reasonable attempt to manage what was in reality an unmanageable situation.²⁵

In its *Statement of General Policy*, the FPC noted that the failings of cost-of-service had brought on an “ever-growing volume of additional rate and certificate filings” and “[i]t is essential that ... means be found for making the most effective use possible of the Commission's limited facilities in discharging the new and additional duties called for by the regulation of producers of natural gas.” Clearly laying the blame on the *Phillips* decision, the FPC expressed optimism that the new area rates would serve to establish rates “on a simple, clear, and administratively feasible basis.”²⁶

In its attempts to establish areawide pricing, the FPC divided the United States into five administrative regions and several sub-regions based on geography and location of gas reserves. In each of these regions, the commission set interim rates based on a number of factors, including cost information from pending and settled rate cases, past and present price structures, production trends, general price trends over a number of years, and market prices.²⁷ On the face of it, the FPC decision to institute area rates seemed reasonable. The morass of rate cases could now be more quickly resolved since five prices would now take the place of thousands of individual price decisions. In reality, the decision to implement area rates was a disaster that unfolded over the decade of the 1960s.

²³ Arlon R. Tussing and Connie C. Barlow, *The Natural Gas Industry*, 103.

²⁴ Gardiner Symonds, interview by Bob Williams, transcript, November 30, 1966, El Paso Corporation, “Executive Papers, Gardiner Symonds 1953-1968,” box 8, file 2-1-0-2, 1.

²⁵ Federal Power Commission, *Statement of General Policy No. 61-1*, 24 FPC 818; 1960 FPC Lexis 493, September 28, 1960.

²⁶ *Ibid.*

²⁷ *Ibid.*

The issuance of its *Statement of General Policy* proceeded by several months major changes in the makeup of the FPC. The 1960 presidential election ushered in a Democratic administration which quickly established itself as pro-consumer in terms of energy regulation. In addition to ideology, the geographical representation of the FPC also shifted under the new regime: only one commissioner appointed by presidents Kennedy and Johnson (out of nine) came from a producer state.²⁸ The others came from consumer regions, and this was reflected in the policy decisions made by the commission during the 1960s. During the course of the decade, the FPC moved from a pro-producer position to one of being pro-consumer. The pro-consumer FPC eliminated price escalator clauses and proclaimed a moratorium on rate increase filings until 1968. These policies reduced the incentives and increased the risks for gas exploration and production, inadvertently contributing to nationwide natural gas shortages in the 1970s.²⁹

With a new pro-consumer majority, the FPC set about determining permanent rates for the areas it had established. For supporters of regulation, area rates had held out the promise of a more responsive and efficient FPC with equitable pricing for consumers and producers. They were sorely disappointed. Establishing permanent area rates was no quick and easy task; hearings to determine the Permian Basin permanent rate began in December 1960 and dragged on for five years before the commission made its first “permanent” rate decision. The commission heard testimony from hundreds of producers, state regulatory commissions, utilities, and other interested parties. It examined more than 30,000 pages of documents in the course of the rate investigation. All the while, rates remained at an “interim” rate, effectively a frozen pre-1960 price. While rates were frozen, costs associated with production such as labor, capital, depreciation, and physical plant continued to increase, putting pressure on producers.³⁰

The Permian Basin decision of 1965 established a two-tier pricing structure for gas that the FPC later applied to other regions.³¹ For “old” or “flowing” gas (flowing from wells drilled prior to January 1, 1961), the rate per mcf was set at 14.5 cents for Texas gas and 13.5 cents for gas produced in New Mexico.³² To encourage new gas production, the commission established higher rates for wells drilled after December 31, 1960: 16.5 cents for Texas and 15.5 cents for New Mexico.³³ These rates represented a marked *decrease* from the interim rates of 1960-1965, despite increasing labor, material, and financing costs, as well as inflation. During 1960-1965, Texas gas had sold for as much as \$.18 per mcf, while New Mexico Permian gas had traded for \$.16 under the interim rate schedule. The new “permanent” rates were even lower than the prevailing market rates of 1959, upon which the interim rates were based.

The commission adopted a similar formula for the next region it examined, that of southern Louisiana. There the rate reductions were even more dramatic than in the Permian region. Prices had reached \$.236 per mcf in 1960, only to drop with the settlement of a number of

²⁸ Republican president Dwight Eisenhower (1953-1961) appointed three commissioners from producer states and four from consumer regions. See Sanders, *The Regulation of Natural Gas*, 112.

²⁹ Sanders, *The Regulation of Natural Gas*, 112.

³⁰ *Ibid.*

³¹ The 1965 rates were not fully settled until 1968, when the Supreme Court upheld the FPC's new rates. See Richard H.K. Vietor, *Energy Policy in America Since 1945: A Study of Business-Government Relations* (Cambridge: Cambridge University Press, 1984), 153.

³² Federal Power Commission, *Area Rate Proceeding, Docket No. AR61-1, Opinion No. 468, 34 FPC 159* (Washington, DC: U.S. Government Printing Office, August 5, 1965), Syllabus 76.

³³ *Ibid.*, 55.

Kennedy-era cases. By 1964, the FPC had rolled back rates in southern Louisiana to \$.162 per mcf, a roughly 33% price reduction during a period of otherwise positive growth and no significant deflation in the wider economy.³⁴ Area rates added to the confusion and risk of doing business in the gas industry, encouraging Tenneco and others to diversify. Despite the positive intentions of the commission, it came down to the economics of the situation. Gardiner Symonds noted that:

The matter is simple. If the price is right, they will find the gas. But in the face of FPC policies, you are not going to have producers drilling where they can only lose. It's an economic question: you can't wildcat for gas with a bureaucracy calling the shots. Over the years, the people will be driven out of that business...Overall, you come up with a slow creeping attrition in gas supply, nothing spectacular, just an erosion of the supply...³⁵

Created in 1938 to bring order to an expanding gas industry, by the early 1960s, regulation by the FPC (as reinterpreted by the Supreme Court) threatened to bring stagnation to a once dynamic industry. Tennessee Gas and other major gas companies frustrated by regulation turned increasingly to diversification in the 1960s.

The Impact of Price Cuts

The 1963 FPC *Annual Report* noted that the commission promised to “hold the line against increases in natural gas prices,” hoping to benefit consumers at large. This philosophy held sway during the Kennedy and Johnson years;³⁶ average rates increased by no more than two cents until the end of the decade.³⁷ The FPC sought to accomplish its goal with interim rates, since by 1968 “permanent” rates had only been established for two regions. For eight years, the industry had operated under pre-1960 frozen “interim” rates for the other three regions of the country. The system was unworkable; the commission determined a “fair” rate of return with prices nearly a decade old, even as costs continued to increase. What company would wish to invest the substantial sums needed to find, drill, and connect new gas wells when prices were frozen at low levels nearly a decade out of date?

The actions of the commission *increased* the risks faced by energy companies in the discovery and production of gas, which was already a risky proposition. Low rates of return might not justify the risk of drilling dry holes, or of reaching remote or deep pockets of gas. While a lucky driller might strike oil or gas on the first drilling attempt, it often took several costly attempts to discover commercially viable oil or gas wells. These risks were even more significant for wildcatters, who lacked the financial resources of large corporations.³⁸

³⁴ Federal Power Commission, *Area Rate Proceeding, Docket No. AR61-1, Opinion No. 468, 34 FPC 159* (Washington, DC: U.S. Government Printing Office, August 5, 1965), Syllabus 55.

³⁵ Gardiner Symonds, interview by Bob Williams, transcript, November 30, 1966, El Paso Corporation, “Executive Papers, Gardiner Symonds 1953-1968,” box 8, file 2-1-0-2, 2. By 1968, just two years after this interview, the nation's gas reserves were in decline.

³⁶ Federal Power Commission, *1963 Annual Report* (Washington, D.C.: U.S. Government Printing Office, 1964), 15.

³⁷ Paul MacAvoy and Robert Pindyck, *Price Controls and the Natural Gas Shortage* (Washington, D.C.: American Enterprise Institute, 1975), 14.

³⁸ Gardiner Symonds, “Organizing for Growth,” *Nation's Business*, August 1968, 627.

The price policies of the FPC decreased the nation's gas supply as producers sought safer and better investments. In 1959, just before the institution of area rates, 912 successful gas wells were drilled in the United States.³⁹ That same year, domestic production totaled 12.4 trillion cubic feet (tcf), while discoveries were a healthy 20.6 tcf, representing a net increase in gas reserves of 8.2 tcf.⁴⁰ Even though discoveries adequately contributed to reserves during the early and mid-1960s, by 1968 a serious supply problem was emerging. In 1968, the number of successful new oil and gas wells drilled dropped to 468, just half the 1959 total. Costs were an important factor in this decline. Inflation averaged 2.6 percent annually during the period 1959-1968, while costs for drilling increased 4.4 percent annually, rapidly eroding the margins for successful wells. Dry holes and marginal wells grew costlier each year, and companies found it ever more difficult to recoup losses from the declining revenues provided by successful wells. With prices largely static, the potential rewards for successful new wells declined each year—conversely, the risks for drilling increased each year.⁴¹

Not surprisingly, the result was less gas and fewer discoveries. Gas discoveries declined in 1968, with production at 19.4 tcf while discoveries were only 13.7 tcf, a net decrease of 5.7 tcf—the first decline in American natural gas reserves in history. This situation deteriorated over the next few years. The 1969 imbalance more than doubled, with a net decrease in reserves reaching 12.3 tcf. On paper, the addition of huge reserves of Alaskan North Slope gas provided a temporary respite from this trend in 1970, but this gas still has not moved to markets more than forty years later. These Prudhoe Bay reserves, while perhaps providing some intangible benefit to those worried about energy supplies, might as well have been on the moon.⁴²

By the early 1970s, the nation's gas reserves were in freefall. Americans had eagerly embraced natural gas, with consumption doubling between 1956 and 1970 to 22 trillion cubic feet per year. As consumption increased, however, the number of active gas wells in the United States declined to 3840, a thirty percent drop from a 1962 peak of 5459 wells. The decline in reserve additions was an even more troubling trend, with deficits reaching nearly 16 tcf per year by 1973.⁴³

Clearly, the FPC's attempt to “hold the line” on gas prices was having an impact on gas supply and demand. Artificially low prices encouraged consumer and commercial gas use, while at the same time discouraging investment in exploration. The glacial pace of rate determinations in the various area rate cases also prevented prices from reacting to market conditions, at least in a timely fashion. In an unregulated market, increasing demand would have led to higher prices, which in turn would have dampened demand in the short term while increasing the incentives for new exploration and production. Theoretically, a new equilibrium would be reached with higher prices providing adequate returns for new discoveries while discouraging “overconsumption.”

One area where free-market forces were more apparent was in the intrastate gas markets. The FPC did not have jurisdiction over prices in intrastate trade, so market forces functioned more freely at the state level (although state utility commissions could set rates). Gas prices

³⁹ American Petroleum Institute, *Basic Petroleum Data Book* (Washington, DC: API, April 1977), section 3, table 1.

⁴⁰ House of Representatives, Committee on Interstate and Foreign Commerce, Hearings on Natural Gas Supplies, 94th Congress, 1st Session, June-July 1975, 1043-1051.

⁴¹ House of Representatives, Committee on Interstate and Foreign Commerce, Hearings on Natural Gas Supplies, 94th Congress, 1st Session, June-July 1975, 1043-1051.

⁴² *Ibid.*

⁴³ *Ibid.*

were consistently higher in unregulated markets, and shortages nearly nonexistent. As regulated prices remained static during the 1960s, a number of gas companies shifted sales to these unregulated markets. In 1965, one-third of the nation's gas production flowed into intrastate markets. Over the course of the next decade this increased to nearly half, even as overall gas reserves declined.⁴⁴ Intrastate customers outbid interstate pipelines for new gas discoveries, leaving interstate pipelines scrambling for new reserves.

The higher price trend in intrastate sales first appeared in 1968, the first year in which gas discoveries failed to exceed production (actual shortages did not appear until 1970).⁴⁵ Permian gas for intrastate sale traded at \$.4 cents more per mcf than regulated gas; this difference increased to 2.7 cents per mcf by early 1970, a nearly 14% difference in price. A similar, but less pronounced, difference in price appeared in the Southern Louisiana region by 1970.⁴⁶ Clearly, it was in the best interest of producers to sell to the highest bidder, consequently shortages appeared as producers sent new production to the intrastate markets.

Conclusion

The *Phillips* decision led to a long string of unintended consequences that undermined the health of the natural gas industry and disrupted the fairly successful regulation of natural gas in place since 1938. The FPC's inability to effectively set fair prices led to the debacle of area rates, which with the commission's determination to hold prices low in the 1960s led to what Gardiner Symonds called "a slow creeping attrition" of gas supplies. By the end of that decade, U.S. gas reserves had tumbled as producers shifted resources into more lucrative ventures. Gas shortages soon appeared—not brought about by real scarcity, but rather by misguided regulatory policy and artificially low prices. The potential solution to these shortages—deregulation—would follow in the 1970s.

⁴⁴ Arlon R. Tussing and Connie C. Barlow, *The Natural Gas Industry*, 106.

⁴⁵ Federal Power Commission, *Natural Gas Survey Volume 1* (Washington, DC: U.S. Government Printing Office, 1975), 105. See also Federal Power Commission, *Annual Report 1976* (Washington: U.S. Government Printing Office, 1977), 16.

⁴⁶ Vietor, *Energy Policy in America Since 1945*, 159.